MARSHALL STAR

Serving the Marshall Space Flight Center Community **Dec. 13, 2001**

Photo by Doug Stoffer, NASA/Marshall Space Flight Center

Lighting our tree

Marshall Associate Director Axel Roth turned on the lights of Marshall's Christmas tree on Dec. 3 in front of Bldg. 4200, opening the Center's holiday season. "We light this tree as a reminder that the freedoms we hold dear are still alive and serve as a beacon in this world," Roth said. "We light this tree as a shining example of our resolve. The lights on the tree represent lives lost when our freedom was recently attacked. When you drive by this lighted tree, remember them. And may your holiday season have deeper meaning — deeper appreciation — and deeper love, for all."

Inside the Star

NASA teams with Amgen to test osteoporosis treatment

Amgen/Marshall news release

Half the women in America over the age of 50 will eventually suffer fractures stemming from bone loss (osteoporosis), and more than 30 million women will develop significant bone loss and the resulting increased risk of serious bone fractures, according to the National Osteoporosis Foundation.

Now, NASA and Amgen, the world's largest biotechnology company, are teaming up to use the bone loss experienced in space travel as a "laboratory" in which to simulate accelerated osteoporosis. This collaborative study — sponsored by NASA's Space Product Development Program at the Marshall Center — will evaluate the ability of the Amgen investigational protein OPG (osteoprotegerin — ahs-tee-oh-pro-teh-JEH'-rihn) to prevent bone loss caused by a lack of weightbearing, a common problem for bedridden seniors.

The Commercial Biomedical Testing

*See **Osteoporosis** on page 8*

December is Drunk and Drugged Driving Prevention Month

Sobering facts about blood alcohol concentration

Most adults have been in a situation in which their friends, family members, or even they, themselves, have driven while impaired. Alcohol consumption has become an accepted element of holiday celebrations, sporting events and social get-togethers.

Many people traveling home from such activities find their driving abilities impaired to some degree. This common situation could easily be avoided by choosing a designated driver or planning alternate modes of transportation. Unfortunately, too many people continue to drive while impaired, citing inconvenience, pride, or embarrassment as excuses for their reckless behavior.

Driving while impaired is a crime. Last year alone, 15,936 fatalities were attributed to alcohol-related crashes, and in 1997, more than 1.5 million arrests of impaired drivers were made. The National Highway Traffic Safety Administration (NHTSA) initiated the ongoing "You Drink & Drive, You Lose" campaign, to address this problem.

The goal of this campaign is to reduce the number of alcohol-related traffic fatalities to 11,000 or less per year, by the year 2005. NHTSA hopes that informing the public about the dangers associated with impaired driving will assist people in making better, life preserving, decisions about impaired driving.

What is blood alcohol concentration?

Blood alcohol concentration refers to the amount of alcohol present in one's blood system. It begins to develop after only a minimal amount of alcohol is consumed, and increases exponentially with each drink consumed.

Blood alcohol concentration does not distinguish between "hard" liquor, wine or beer. Any alcohol consumed will increase an individual's level. Law enforcement officials possess the tools to measure blood alcohol concentration, and use them when they believe a driver to be impaired.

How much is too much?

The blood alcohol concentration produced by drinking a set quantity of alcohol will vary among people, due to physical and environmental factors such as height, weight, previous experience with alcohol and amount of food eaten prior to drinking. Due to the wide variance that exists between individuals, it is wise to make alternate travel plans or designate a driver, when you plan to consume even a minimal amount of alcohol.

At what level does impairment begin?

Impairment of two critical elements of safe driving: judgment and reaction time, can begin at any blood alcohol concentration level over .00. Legal blood alcohol concentration levels vary from state to state.

Driving under the influence, at any level, endangers the life of the driver, his or her passengers and all others on the road. When we begin to share a common belief that "sober driving is the only truly safe driving," we will begin to succeed in reducing alcohol-related fatalities and the physical, emotional and economic burdens impaired drivers inflict upon the community each year.

Remember, if you drink and drive, you lose.

Adapted from article published by the National Highway Traffic Safety Administration, U.S. Department of Transportation

Space Camp photo

Space Camp offering discount

The U.S. Space & Rocket Center is offering a discount to Marshall Center employees and family members who attend any of the five Space Camp and Aviation Challenge programs. For $499, employees and family members may attend one of the camps before May 31, 2002. Programs include Space Camp, Space Academy, Advanced Space Academy, and Aviation Challenge — MACH I, II and III. Normally, Space Camp programs cost $699 to $899 from September through January and $749 to $949 February though May. For more information, log on at spacecamp.com or dogfite.com. To register, call toll-free at 1-888-831-6293.

Marshall charts a course toward the VPP Star

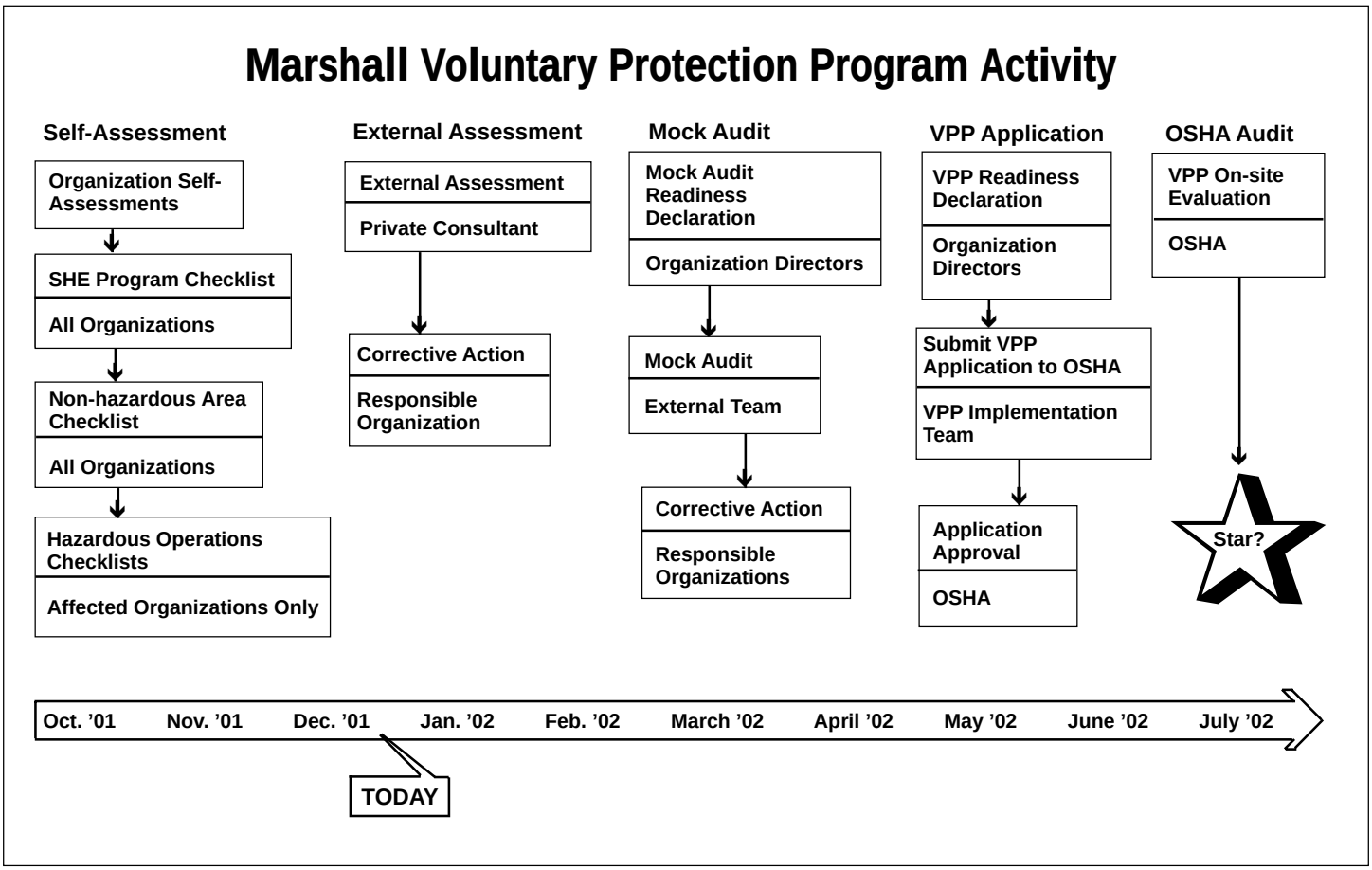
The Marshall community has committed to the goal of earning the Voluntary Protection Program (VPP) Star certification by July 2002.

The final stage of the application process will occur when the Occupational Safety and Health Administration (OSHA) Audit Team conducts an on-site evaluation of civil service and contractor safety and health programs.

As shown in the figure below, the Marshall community will move through several phases of self-assessment and corrective action while preparing for the on-site evaluation.

The initial phase of self-assessment, involving the assessment checklists, annual Inventory of Hazardous Operations, and regulatory compliance checklists, is nearly completed.

The second phase — in which a private consultant conducts an external assessment of the Safety, Health and Environmental Program against the OSHA VPP criteria — is under way.



MSFC Holiday Reception

Major organizations at the Marshall Center helped to create the holiday village known as Marshallville for this year's annual holiday reception. Employees attending the event were able to view storefront displays, enjoy holiday jazz, good food and fellowship.

Photos by Emmett Given and Doug Stoffer, NASA/Marshall Space Flight Center

Marshall's Legal Office well-represented the courthouse and police station.

Tommy Thompson, left, Walter Robinson and LaRoux Larry perform holiday jazz in the park.

The Customer and Employee Relations Directorate decorated the village's Sweet Shop.

Center Operations Directorate adorned the General Store.

Out of this World Cut-n-Curl storefront was permed and styled by the Flight Projects Directorate.

The Equal Opportunity Office Toy Shop display showed a very diverse doll collection.

Dawn Gaddis, left, Jeannine Norman and Lisa Nayman at the corner of Stephenson Lane and Kennedy Way

Ye Olde Shuttle Music Shop was garnished with pictures of the Shuttle Carolers and a familiar Santa.

Safety and Mission Assurance Office holiday Medical Building storefront

MSFC Holiday Reception

Jim Kennedy and one of the sidewalk Santas with non-perishable food items collected for the North Alabama Food Bank.

Space Transportation Directorate premiered the colorful Stars Theater.

Bill's "ED" Diner (Engineering Directorate) provided a piece of nostalgia.

The Systems Management Office adorned the Library

MSFC Holiday Reception

Rita Mason, left, and Kathy Rice enjoy the good food.

The SLI Post Office, ready for holiday mail

The Chief Financial Office MSFC Bank garnished with the loot

Christi Dame, left, Gray Marsee and May Wales show holiday cheer.

Osteoporosis

Continued from page 1

Module Experiment is being conducted onboard the Space Shuttle during the 11-day Endeavor STS-108 mission that launched use actual date ?? whatever it will be from the Kennedy Space Center in Florida. The CBTM payload was developed and is operated by BioServe Space Technologies, a non-profit, NASA-sponsored Commercial Space Center (CSC) located at the University of Colorado in Boulder and at Kansas State University.

Experiments

"The Space Product Development Program assists companies developing space and microgravity-related experiments and helps them explore how space research can contribute to the growth of their business," said John West, Marshall's Commercial Space Center manager for BioServe.

"Industry funds the research, pays for a portion of launch costs, and brings resulting products or services to market," West said. "Because a company pays for the research, it has the opportunity to commercialize products that may be developed as a result of the research."

This space experiment will contribute to Amgen's ground-based studies of OPG. Since space flight induces a complete, more systematic, accelerated bone loss, it is expected to provide a good model for osteoporosis and potential treatments. Potentially, it could provide scientists with further insight into the relationship between skeletal loss from microgravity and the role of OPG and OPGL in the determination of bone composition, morphology and mechanical properties. This data may assist Amgen in its development of OPG as a treatment for osteoporosis.

"NASA also is interested in treatments that prevent bone loss in astronauts," said West. "Microgravity-induced bone loss is a significant barrier for long-term human space flight. For various reasons, current medications for osteoporosis are not appropriate or ideal countermeasures for most astronauts. In addition to this study, NASA is studying bone loss in Space Station crewmembers."

Osteoporosis has been considered by some to be a biological consequence of aging. However, normal weightbearing and exercise are important contributors to skeletal health. Like long-term bed rest, space flight prevents the normal mechanical loading of bone.

The effects of gravity are reduced up to 1 million-fold during orbital space flight. The degradation of bone is accelerated in space, leading to losses of 0.5 percent to 2 percent of bone density per month. Previous missions have documented decreases in bone density of 4 percent to 13 percent. This rate of bone loss has significant negative implications for long-term manned space flight, and could limit the duration of stays on the Space Station. Upon return to earth, bone density in astronauts appears to recover slowly and perhaps incompletely.

Just before the launch of mission STS-108, laboratory mice bred specifically for laboratory testing will receive either OPG or placebo. After these mice orbit in Endeavour for its planned 10-day flight, the density of their bones will be measured to determine whether OPG prevented microgravity-related bone loss.

"OPG appears to prevent bone loss in a variety of diseases, including cancer, and we anticipate that a drug based on this molecule will be effective in preserving bone mass in microgravity — whether that applies to 50 astronauts or millions of bedridden senior citizens," said Dr. Paul Kostenuik, a research scientist in Amgen's Metabolic Disorders group. "The prolonged therapeutic effect of a single treatment allows for infrequent dosing, which may simplify administration for astronauts and for osteoporosis patients."

Missions

On a later mission (STS-107), and possibly on an early Space Station opportunity, the level of existing OPG of the astronauts will be compared before and after the mission to determine whether the levels of this naturally occurring regulator of bone destruction are influenced by microgravity.

Amgen discovered OPG in the mid 1990s as part of its genomics drug discovery work and has been evaluating its safety and efficacy in treating osteoporosis and the spread of cancer to the bones. OPG is a naturally occurring secreted protein produced by most mammals, including man. An injected protein, OPG helps regulate bone growth, destruction and density by inhibiting formation of osteoclasts; osteoclasts form from white blood cells and are responsible for removing old bone from the bone surface. The old bone is replaced with new bone by osteoblasts which come from the surrounding marrow. Higher than normal levels of OPG are associated with significant increases in bone density and bone strength.

Amgen's OPG development program is evaluating the injected protein's ability to safely and effectively treat osteoporosis and cancer metastasis to bone. Osteoporosis is a significant health threat for as many as 75 million people worldwide. About 80 percent of diagnosed patients are women, but physicians are increasingly recognizing the importance of treating men as well. Osteoporosis is characterized by low bone mass leading to fragile bones and increased susceptibility to fractures.

Amgen is a global biotechnology company that discovers, develops, manufactures and markets important human therapeutics based on advances in cellular and molecular biology.

BioServe, housed in CU-Boulder's aerospace engineering sciences department, performed preliminary research with OPG on ground-based simulations of space flight osteoporosis. "We also acted as the intermediary between Amgen and NASA to obtain this flight opportunity and others in the future," said Ted Bateman, a BioServe biomedical engineer who spearheaded the CU-Boulder portion of the project.

Established in October 1987, BioServe's mission is to develop new or improved products through space life science research in partnership with industry, academia and government.

Mike Kearney, Brad Mason play key roles in International Space Station science operations

by Jonathan Baggs

Marshall teammates Mike Kearney and Brad Mason play key roles in the worldwide science operations for the International Space Station. Kearney brings years of experience to the table; Mason brings a much younger perspective. And both are critical to mission success.

Kearney, a Lexington, Ky., native, and Mason, a Cherokee County native from Cedar Bluff, are members of the team that coordinates Space Station science research from the Payload Operations Center at the Marshall Center. The Payload Operations Center is the science command post for the Space Station — the most ambitious research endeavor ever undertaken.

Kearney is the assistant to the director of the Ground Systems Department in the Payload Operations Center. His team works with ground controllers and scientists to develop the computer and communications systems so they can monitor and control experiments on the Space Station.

As a timeline change officer, Mason is responsible for updating and maintaining the daily plan that is used by the crew to operate science experiments onboard the Space Station.

Photos by Terry Leibold, NASA/Marshall Space Flight Center

Brad Mason at his terminal in the Payload Operations Center

"Each day, a new plan with a day's worth of work is sent to the crew onboard the Space Station," Mason says. "If the crew has to deviate from this plan, then it's my responsibility to figure out how to get things back on schedule with the least impact to the science experiments."

Mike Kearney Eoutside the Payload Operations Center at Marshall

Long before he arrived at the forefront of helping with scientific experiments in space, Kearney was a photographer for the Lexington Herald-Leader from 1967-1968, just after graduating from Lexington Catholic High School. After submarine service in the Navy, he held the same position at the newspaper from 1975-1978. He is the son of Mr. and Mrs. Michael W. Kearney, Jr., of Lexington.

After graduating from the University of Kentucky with a bachelor's in electrical engineering in 1978, Kearney worked for two years on the Space Shuttle launch complex at the Kennedy Space Center in Florida. He then moved to Houston to work at the Mission Control Center at Johnson Space Center.

After 13 years in Mission Control, Kearney worked in the International Space Station Program Office in Houston for five years. It was during his time at Mission Control that he became involved in working with Space Station ground systems and also helping develop relationships with control centers among the Station's international partners.

He moved to Huntsville almost three years ago to work in the Marshall Center's Payload Operations Center.

Managing the science activities — as well as the time and space required to accommodate experiments and programs from a host of private, commercial, industry and government agencies worldwide — makes the job of coordinating Space Station research a critical one.

"NASA has the job of leading all the international agencies that collaborate in this program," Kearney said. "In my team, I am the focal point for that international coordination. In this environment, every country is trying to perform science, increase results and reduce cost. It keeps things interesting."

Mason, a 1995 graduate of Cedar Bluff High School in Cedar Bluff, Ala., earned a bachelor's degree in aerospace engineering from the University of Alabama in Tuscaloosa in 1999. He is the son of Michael and Pat Mason of Cedar Bluff.

Mason says working with NASA is "something I've wanted to do since I was in elementary school. It's awesome to think about the amazing history of NASA and to realize that I'm now a part of that as we continue to make history with the International Space Station."

The writer, employed by ASRI, supports the Media Relations Department.

Generous Engineering Directorate hearts help neediest

by Debra Valine

Employees and contractors of GSE and Mechanisms Design Group in the Engineering Directorate collected $225 to help the Downtown Rescue Mission provide Thanksgiving meals to those in need.

The project started during the Combined Federal Campaign Community Service Days when some GSE and Mechanisms team members volunteered to serve meals at the mission, and sort clothing for the mission's thrift store.

"While we were there, we saw a sign saying how many turkeys the mission would need to serve Thanksgiving lunch," said Kathy Lundy, the group's management support assistant. "The sign said they had zero, but needed 340 turkeys."

Last year, the mission made 138 food baskets for families with their own cooking facilities, in addition to feeding lunch at the mission. Each basket included the turkey and all the trimmings. Chaplain Anthony Ford, the mission's chaplain, told Lundy the goal for Thanksgiving 2001 was to do 150 baskets.

Each complete basket cost about $20; the turkey was estimated to cost $10. The 28 GSE and Mechanisms team members collected money to provide baskets to 11 families or buy 22 turkeys.

Courtesy photo

Employees from the GSE and Mechanism Design Group present the Downtown Rescue Mission with $225 to buy Thanksgiving turkeys. From left are Kathy Lundy; Don McQueen; Chaplain Anthony Ford of the Downtown Rescue Mission; Nancy Gibson; and Jennifer Hawkins.

This isn't the only time the group has reached out to those in need. Early in the school year, Marshall's Government and Community Relations Department coordinated a Centerwide drive for school supplies. The GSE and Mechanism Design Group bought 12 complete sets of everything on the list provided by Christmas Charities Year Round.

"That's just the way we are as a group," said Lundy. "Someone hears of a great idea for helping in the community, and we pass the word along to the others in the group. Nearly everyone participates in our projects."

The writer, employed by ASRI, is the Marshall Star editor.

Energy tip

Insulating your home may offer relief from high energy bills

A good insulating system can help keep your home warm during winter and cool during summer. Check the insulation in your attic, ceilings, exterior and basement walls, floors and crawl spaces to see if it meets the levels recommended for your area.

Insulation is measured in R-values — the higher the R-value, the better your ceilings and walls will resist the transfer of heat. Typical R-values for the South are 19 for ceilings and 11 for walls. Consider factors such as your climate, building design and budget when selecting insulation R-value.

The easiest and most cost-effective way to insulate your home is to add insulation in the attic. Insulation can be purchased in rolls, or batt type, designed for installation between wall studs and ceiling joists. It is predictable in thickness and R-value uniformity. Loose insulation has an installation cost advantage in that it can be blown into the attic area, however, thickness variations result in non-uniform R-values.

If you have an energy tip that you would like to share with the "Marshall Star" readers, send it to: *cedreck.davis@msfc.nasa.gov* or *juergen.haukohl@msfc.nasa.gov*

Marshall Star

Dec. 20 will be the last issue of the "Marshall Star" for 2001. Publication resumes Jan. 10, 2002.

Moonbuggy Race

The ninth annual Great Moonbuggy Race will be April 12-13, 2002, at the U.S. Space & Rocket Center. The race requires students to design a vehicle and in the process, confront real-world engineering problems. The challenges introduce them to those faced by the NASA team that designed the Lunar Rover Vehicle for Apollo astronauts to travel on the Moon. The challenge continues when students race their vehicles over a half-mile simulated lunar terrain, to encounter man-made craters, rocks, ridges and soft soil. High school students race Friday, April 12, and college students race Saturday, April 13. Teams from 20 states and Puerto Rico competed in 2001. Prizes are awarded not only for the fastest vehicles, but also to the team whose design represents the best technical approach toward solving the engineering problem of navigating the simulated lunar surface. More information about the competition is available on the Marshall Center's Great Moonbuggy Race Web site at: *http://moonbuggy.msfc.nasa.gov*

AMPET conference

The 5th Conference on Aerospace Materials, Processes and Environmental Technology (AMPET) will be Sept. 16-18 in Huntsville. Marshall's Materials, Processes and Manufacturing Department will host the event. The department is seeking technical presenters through a call for papers. For more information about the conference, visit the Web at: *http://ampet.msfc.nasa.gov*

TSP Open Season

Thrift Savings Plan (TSP) Open Season continues through Jan. 31, 2002. Employees are encouraged to submit changes via the Web at: *www.employeeexpress.gov.* For more information, call Ginger Martin at 544-5654, or Debbie Allen at 544-7536.

Upcoming classes

Cost Control classes

Remaining classes in the series of project planning and analysis classes include Continuous Risk Management Overview, from 8 a.m.-noon Dec. 19 in Bldg. 4200, room G-13E. Classes resume in January with Project Analysis on Jan. 9, Schedule Assessment and Analysis, Jan. 16, and Managing a Technology Program, Jan. 23. The series of 10 classes will be repeated at future dates. Participants interested in attending should register via AdminSTAR.

Clubs and Meetings

Toastmasters International

NASA Lunar Nooners Toastmasters Club meets every Tuesday for lunch at 11:30 a.m. in the Bldg. 4610 cafeteria conference room. Toastmasters can help improve your communication skills, lose the fear of public speaking, and be a better listener. For more information, call Leslie Diggins at 544-0049 or visit the Web at: *http://www.toastmasters.org/.*

Sports

NASA Ski Week

The 11th Annual NASA Ski Week will be hosted at Banff/Lake Louise March 9-16, 2002. All Marshall employees, on-site contractors, retirees, and dependents are eligible to participate. Interested persons may call 1-233-0705 or e-mail for additional information.

Miscellaneous

Online auctions

Redstone Arsenal's Morale, Welfare and Recreation Department will be conducting online property auctions on items as they become available. For more information, visit the Web at: *www.redstonemwr.com*

Huntsville Flight tickets

Ticket vouchers for Huntsville Flight basketball tickets are available at the Redstone Arsenal Recreation Center Ticket Office in Bldg. 3711. Vouchers — at $9 each — are for Upper Bowl B seats and may be used for any game. This is a savings of $2 off the regular ticket price. Vouchers must be exchanged for tickets at the Von Braun Center box office and may be upgraded. The Recreation Center Ticket Office is open Wednesday-Friday from 1:30-8 p.m. and Saturday and Sunday from 10 a.m.-4 p.m. Stop by the Recreation Center to purchase vouchers and pick up a Huntsville Flight season schedule. For more information, call 876-4531 during operating hours.

Symphony tickets

Tickets to the Huntsville Symphony's New Year's Eve Concert are available at a 20 percent discount to NASA's employees, retirees and contractors, and their families. To order, call the Huntsville Symphony at 539-4818 or bring your badge to the Box Office on New Year's Eve. The concert — honoring 50 years of space exploration — starts at 7:30 p.m. and will include "2001, Space Odyssey" theme, "Jupiter" from "the Planets" (Holst), themes from "E.T.", "Star Wars", "Star Trek" and other pop favorites honoring the heavens. Regular ticket prices range from $24-$37, and student tickets are $10.

NASA Exchange

Annual nut sale

The NASA Exchange annual nut sale is under way. Sales will be from 7:30 a.m. -3 p.m., Monday-Friday (excluding holidays) in Bldg. 4203 Space Shop. For more information, call 544-7565.

Employee Ads

Miscellaneous

★ Optimus CD8150 5DISC changer & 26W speakers, $100; encyclopedias & dictionaries, $20; Sony VAIO computer and monitor, Lexmark printer, $600. 722-9483
★ Baby swing, $30; Palm Pilot, never used $150. 533-0665
★ Starter drum set, $225. 837-7916
★ Pentium PC 200 Mhz, 17-inch monitor, 2GB hard drive, Word, Excel, Epson stylus printer, extra ink, flatbed scanner, $175 obo. 722-2190
★ Gig bag for acoustic guitar, new, $10. 852-5481
★ New Magic Chef washer, white, $175. 971-0048
★ Steam Buggy seen on TV, used twice, $75. 828-2178 after 5:30 p.m.
★ Pentium computer 200 Mhz, 32Mb RAM, 2GB hard-drive, (system box only), $175; with 17" color monitor, $250. 882-1779
★ The First Years Crisp and Clear 900MHZ baby monitor, $24; wide opening diaper Genie, $15. 858-0272
★ Sheldon belt-driven lathe, 110V, 10" swing, 36" between centers 3 & 4 jaw chucks, table included, $1,500. (205) 647-4949
★ Gameboy Color games, Zelda, etc., 722-0997
★ Singer sewing machine w/cabinet, $45; Ladies 12 lb. bowling ball with bag, $40. (256) 729-0016
★ Walnut console piano, $1,300; French-Provincial pecan coffee & end tables, $150; window curtains, 5 sets, Lorraine Rose, $300. (256) 379-2581
★ Oak coffee table, beveled glass tops, two matching end tables, white wash finish, $250. 539-0507
★ Washer, $80; dryer, $75. 837-6649
★ Antique Christmas tree stand, $35; antique wooden skis with Bear Trap bindings, $60. 882-6832
★ Conn trombone with case, $12; Class 3 trailer hitch for 95-99 Blazer or Jimmy, $50. 233-3407
★ Mobile home, 14x17, remodeled, new flooring, central heat/air, includes back porch & deck, $5,000. 883-6415
★ Four Music City Bowl tickets, Section 332, Row E, Seats 15-18, $122.50; local honey, $5 quart; $3 pint. 837-8087
★ HP Pavilion 8160, 233MHz, 6GB hard drive, 32MB RAM, 24x CD, 17" monitor, $250. (256) 586-7375
★ Four sturdy ladder-back chairs, need refinishing, $150. 722-9989
★ Portable tree stand, "Tree Lounge Bow Hunter Special," plus additional accessories, $275. (931) 962-1683
★ Holiday Barbie dolls, 1997 - $30; 1998 - $35. 885-2450
★ Brunswick pool table, 2 yrs. old, paragon oak w/cherry finish, 1" slate, drop leather pockets, navy blue felt, $2,300 obo. 883-6415
★ Five cans R-12 and automobile a/c recharge kit, $70. 232-2271
★ Franklin 3-piece leather sectional w/dual recliners and queen size hide-a-bed, hunter green, $1,250. 533-5942
★ Chrome-craft dinette table w/leaf and four chairs, $95. 881-9421
★ John Deere collectible, "Up on the House Top," cold cast porcelain sculpture, $30, new in box. 776-0112 after 4 p.m.
★ Music City Bowl tickets, 12/28, two tickets plus parking pass, all for $75. 859-0729
★ Town by London Fog men's all-weather coat w/zip-out lining, taupe, size 40 regular, $75. 828-4817
★ Leather bomber jacket, men's, size 38, $30; antique mahogany coffee table, $50. 881-8674
★ Yamaha grand piano, black onyx, $9,500. 882-2323
★ Shelled pecans, $20 gallon, $5 quart. (256) 227-4522 leave message

Vehicles

★ 1988 Lincoln Towncar, leather, 69K miles, one-owner, garaged, $4,250 obo. 883-8522
★ 1994 Nissan Maxima, V-6, champagne/tan, leather, alloy wheels, am/fm cassette, a/c, cruise, $6,200 obo. 881-8674
★ 1999 Red Corvette Coupe, both tops, automatic, extended warranty, 16K miles, $35,500. 325-3038
★ 2001 Jetta, 12K miles, $18,500. 430-3184/990-2434
★ 1995 Nissan Maxima GXE, 48K miles, ruby, one-owner, garaged, all-power, $8,995. (931) 433-5108
★ 1998 Cadillac Sedan Deville, pewter, 8-cyl., gray leather interior, AM/FM cassette, 52K miles, $20,500 obo. 830-8100
★ 1983 Chevrolet Suburban, towing package, roof rack, 350 V-8, auto, $1,299. 880-8359
★ 1998 Honda, 4-wheeler, 4x4, less than 200 miles, camouflage color, $3,500. 723-7026
★ 1984 Corvette, less than 105K miles, $6,500. 722-5282
★ 1999 Honda Accord LX, V-6, 2-dr., 39K miles, $15,500 obo. (256) 536-3390
★ 2000 Camry CE, teal blue/gray interior, power windows/doors, AM/FM cassette, 6K miles, $16,995 obo. 256-881-2052
★ 1969 Camaro, new SB 400, 4-speed Muncie, 3.73 rear end, needs paint & upholstery, $9,000 obo. 883-6415
★ 1995 Chevy, S-10, ext. cab, 4x4, off-road, auto, 70K ;miles, $9,200. 430-3413, 6-9 p.m.
★ 1995 Saturn SC2, red, A/T, air, AM/FM stereo/cassette, alloy wheels, w/new tires, 52K miles, $6,150. 256-852-4092

Wanted

★ Wooden bunk bed in good condition. 464-9581

★ Snow sled suitable for child's Christmas present. 971-0048

Lost

★ Antique Christmas tree pin, Bldg. 4202 or Bldg. 4752 areas. 544-0190 if found

MARSHALL STAR
Vol. 42/No. 15

Marshall Space Flight Center, Alabama 35812
(256) 544-0030
http://www1.msfc.nasa.gov

The Marshall Star is published every Thursday by the Internal Relations and Communications Department at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Contributions should be submitted no later than Monday noon to the Marshall Internal Relations and Communications Department (CD40), Bldg. 4200, room 101. Submissions should be written legibly and include the originator's name. Send electronic mail submissions to: intercom@msfc.nasa.gov The Marshall Star does not publish commercial advertising of any kind.

Manager of Internal Relations and Communications — Steven Durham
Editor — Debra Valine

U.S. Government Printing Office 2002-733-060-20078

PRE-SORT STANDARD
Postage & Fees PAID
NASA
Permit No. G-27